

What is claimed is:

1. A method for preparing a film structure of a ferroelectric single crystal, which comprises adhering a ferroelectric single crystal plate to a substrate by a
5 conductive adhesive or metal layer.
2. The method of claim 1, wherein the single crystal plate is polished to a thickness of 1 to 100 μm before and after the adhesion with the substrate.
- 10 3. The method of claim 1, wherein the single crystal plate is adhered to the substrate by placing a conductive adhesive between the single crystal plate and the substrate and heat treating the resulting laminate containing the adhesive at a temperature ranging from room temperature to 150 $^{\circ}\text{C}$ for 1 to 24 hours to cure the adhesive.
- 15 4. The method of claim 3, wherein the conductive adhesive is a gold- or silver-containing epoxy paste, or a Pt-containing adhesive sol.
- 20 5. The method of claim 3, which the adhesive is applied using a plate equipped with a pressurizing rod having a round terminal portion made of an elastic rubber.
- 25 6. The method of claim 1, wherein the single crystal plate is adhered to the substrate by depositing a conductive metal on each surface of the single crystal plate and the substrate, combining the two conductive metal layers, and pressurizing and heat-treating the resulting laminate at a temperature of 100 to 600 $^{\circ}\text{C}$.

7. The method of claim 6, which further comprises inserting a plate of a metal having a melting point lower than that of the conductive metal between the two conductive metal layers prior to the pressurizing and heat-treating step of the laminate.
8. The method of claim 1, wherein the ferroelectric single crystal has a dielectric constant of 1,000 or greater as measured in a film form.
9. The method of claim 1, wherein the ferroelectric single crystal is LiNbO_3 , LiTaO_3 or a material having the composition of formula (I):
$$x(\text{A})y(\text{B})z(\text{C})-p(\text{P})n(\text{N}) \quad (\text{I})$$

wherein,
(A) is $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ or $\text{Pb}(\text{Zn}_{1/3}\text{Nb}_{2/3})\text{O}_3$,
(B) is PbTiO_3 ,
(C) is LiTaO_3 ,
(P) is a metal selected from the group consisting of Pt, Au, Ag, Pd and Rh,
(N) is an oxide of a metal selected from the group consisting of Ni, Co, Fe, Sr, Sc, Ru, Cu and Cd,
x is a number in the range of 0.65 to 0.98,
y is a number in the range of 0.01 to 0.34,
z is a number in the range of 0.01 to 0.1, and
p and n are each independently a number in the range of 0.01 to 5.
10. The method of claim 1, wherein the substrate comprises a layer of an oxide material selected from SiO_2 , MgO , Al_2O_3 and ZnO , the oxide layer being contacted with the conductive adhesive layer.

11. The method of claim 1, which further comprises forming a conductive metal layer on the surface of the single crystal plate opposite to the adhesive layer by a sputtering or an electronic beam evaporation method.

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12. A ferroelectric single crystal film structure prepared by a method according to any one of claims 1 to 11.

13. An electric or electronic device comprising the ferroelectric single crystal film structure according to claim 12.

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